APPENDIX F

THE HIDDEN COSTS OF PRIVACY:

THE POTENTIAL ECONOMIC IMPACT OF 'OPT-IN' DATA PRIVACY LAWS IN CALIFORNIA

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EXECUTIVE SUMMARY

"Opt-in" restrictions on third-party data sharing would likely cost California consumers, employees, and taxpayers several billion dollars. In addition, such restrictions would cost California charities $1.57 billion in revenue lost to programs.

These costs reflect ONLY the sectors of the California surveyed in this study: financial services, charitable organizations, and non-store retailing. Needless to say, a study of the full spectrum of California's diverse and heavily data-dependent modern economy would likely yield significantly larger figures.

The costs imposed by this most restrictive "opt-in" type of privacy law would take the form of higher interest rates for credit cards and mortgages, lost efficiencies in non-store retailing, lost donations to charitable organizations, and higher premiums for personal insurance policy-holders.

In addition, the California tax base would likely be reduced by $2.1 billion within several years, as mortgage interest payments under a restrictive information regime would be several billion dollars higher than they would be under a less restrictive one. Employment in the construction industry alone would be reduced by thousands of jobs as new home sales were lost.

This study calibrates lost efficiencies for a very limited number of selected sectors of the California economy if financial service companies, direct marketers and charitable organizations were prohibited by new state legislation from using non-sensitive third-party commercial data to conduct their business or charitable work as efficiently as they now do.

Under an "opt-in" data privacy law, such third-party data sharing would not be available to help them efficiently find customers or donors, tailor services and goods to customers' needs, and reduce the cost of goods and services (and especially credit) they offer to consumers.

Using existing sectoral studies of the impact of restrictions on third party data sharing at the national level, we estimated the costs of these restrictions for only a small segment of the total affected California economy. The methodology employed makes a number of conservative cost assumptions. For these reasons, the costs we report may well understate, possibly by a considerable margin, the total hidden costs of an opt-in privacy regime to the state of California.

The major cost areas of an opt-in data privacy regime for the sectors we studied are as follows:

FINANCIAL SERVICES

- **Inefficiencies Incurred by Financial Service Consumers.** Financial services companies rely on personal data to identify the needs of potential customers, target customers and pool offers, as well as other methods of matching customer needs and supplier services. For example, customers save time through pooled offers and pre-filled applications. They also receive lower priced offers. Personal data also reduces consumer exposure to 'noise' from unwanted offers. Further, restrictions on the use of third party data in California would result in higher search expenditures for companies and lost time and savings for customers.

  - California customers of the 90 largest financial services firms alone would incur an annual increase in search costs of approximately $1.02 billion, assuming firms fully pass these on.

  - California households can be expected to aggregately spend an additional 25.4 million hours to acquire the same goods and services from 90 of the largest financial services companies.

- **Shifts from Inability to Fine Tune Risk and Securitize Debt via Personal Information.** Restrictions on the use of personal information of California residents by financial service companies would create upward pressures on interest rates. Mortgages and credit cards would have to assume higher risk levels due to an inability to accurately assess risk. Opt-in data restrictions also create barriers to entry, making it harder for small and medium sized financial service companies to compete with the larger ones. Over time, with a progressive monopolization of the sector and the loss of competitive pressures, prices can be expected to rise even further. While the specific level of increase in interest rates caused by restrictions on personal information cannot be predicted, even modest increases entail substantial costs.

  - *Mortgages*: A possible 1% increase in the baseline of average 1995 mortgage interest rates would have led to approximately 1,850 fewer homes sold as nearly 85,000 renter and homeowner families would find median priced homes in their neighborhoods unaffordable in that year. $332.6 million in home sale revenue would have been lost along with as many as 1,700 jobs in the residential construction sector. New homebuyers for the year would have paid $110 million ($1,760 per household) more in interest payments in 1995.

  - Tax revenues are impacted by higher interest rates. Higher rates would remove $2.1 billion dollars from taxable revenue over 5 years from new home owning households, assuming 1999 mortgage

levels. At a 4% tax rate, this translates into $80 million dollars in lost tax revenue to state coffers for the same time period.

- *Credit Cards*: A 1% increase in the annual interest rate on credit cards of California residents would result in an additional $927 million in interest payments.

- **Compliance Costs**: Financial service companies will face a one-time expenditure on expertise and equipment in order to update their systems to comply with new data restriction requirements. Assuming that 10% of banks and bank-like firms in California operate on-line and will have to update their systems to comply, the sector can be expected to incur costs of more than $154 million for the e-commerce dimension of their businesses alone.

CHARITABLE ORGANIZATIONS

- **Search costs**: As much as $1.57 billion would be lost from charitable program expenditures in the state. Original research conducted in conjunction with this study shows the loss of valuable information from third-parties, especially financial third-party sources, would have a substantial negative impact on charitable fundraising in California. Specifically, the loss of access to third-party information would result in an additional $933 million in expenditures for fundraising and a loss of an estimated $638 million in donations.

DIRECT MARKETING AND E-COMMERCE

- **Search costs**: In so far as the pool of information 'dries up', the direct marketing sector can be expected to spend more on advertising. It is estimated that direct marketers will have to spend, depending on size and segment, $189 million - $594 million in the aggregate in additional advertising to reach the same consumers.

- **Compliance costs**: To the extent that e-tailers extend credit, they will be subject to the same regulations as other financial service firms. Like these financial service companies, they will be obligated to update their systems. For such firms, restrictions on third-party data transfer can be expected to result in compliance costs of $103 million, even if only 1% of the estimated 65,000 on-line retailers are impacted.

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1.0 INTRODUCTION

This study offers what its authors believe to be the most up-to-date and rigorous analysis of the potential costs of a restrictive (opt-in) privacy regime for the California economy. Consulting the Executive Summary and Appendix C at the end of this study most easily identifies these costs.

Our methodology is discussed in detail in the methodological appendix. Briefly, however, our approach has been to adopt the best available cost algorithms and the most conservative behavioral and statistical assumptions from among those used by previously published and frequently cited studies to calculate privacy costs at the national level. We then applied these algorithms and assumptions to the best available California economic data to calculate the costs for those sectors of the California economy covered by this study.

While our study cannot speak to the potential costs in every area of California's economic life, the sectors we have studied represent an important if not comprehensive range of activities. Given the conservative assumptions we make, we further believe our report may significantly understate the actual costs of a fully implemented restrictive privacy regime for the entire California economy. By adopting this conservative approach, we hope that the reader may gain a useful and valid insight into the economic side of the privacy ledger.

To understand the implications of California's pending legislative proposals, a brief word about the nature of privacy regulation is in order. There are essentially three choices legislators can apply at three stages in the information "stream." These regulatory choices are 1) notice only; 2) "opt-out"; and 3) "opt-in" or affirmative consent. The three stages at which these choices may be imposed on firms and consumers are a) data-gathering from consumers; b) data-sharing with affiliates; and c) data-sharing with third parties or unaffiliated firms.

Of the three regulatory choices, "opt-in" or affirmative consent is the most restrictive, as it requires the consumer, from whom the information is originally gathered, to take additional steps to authorize the further use of the data above and beyond his/her primary interaction with the firm. As some studies have suggested, many consumers may not take this step.[1] This may not necessarily be because they oppose the sale of their data; it may be because they wish to maximize the efficiency of their purchasing-time--they simply can't be bothered, in other words.

[1] Michael Turner and Robin Varghese, Understanding the Privacy Debate. New York: ISEC, 2001. Turner and Varghese suggest there may be a large discrepancy between those who have privacy concerns based on "fundamental" principles and those who are concerned about privacy for pragmatic reasons. Among the latter, a significant portion of privacy pragmatists may include those who express a desire to control access to personal data but are not willing to invest the time or energy to ensure compliance.

It is a prevalent and powerful misperception that the privacy debate pertains only or even primarily "on-line," that is, to e-commerce. To make this assumption is to mistake the changed nature of the modern economy and the now pervasive nature of information flows.

Perhaps the greatest contribution of California's technological prowess and commercial savvy over the last decade has been to enable the application of digital technology to the full range of economic activity around the world. Not only has digital technology created the new field of on-line "e-commerce," but it has also allowed information to be applied systematically "off-line" as well. In short, digital technology enables information to be gathered, stored, and shared in new ways, vastly increased quantities, and analyzed with ever-greater sophistication. The current economic revolution has been not simply a product of information technology but a product of new, innovative and efficient uses of information.

But while this explosion of information gathering and its application has facilitated economic efficiency and human connectedness, citizens, consumers, firms and legislators have also become aware of potential drawbacks to the digital revolution, and nowhere more so than in California. As with the technology itself, California may be leading the way in shaping governmental regulation of this issue.

Privacy has emerged as an issue for policy debate in California for two reasons. First, there is a worry that the aggregation of individually identifiable data will violate the privacy of individuals by revealing life styles and actions that individuals wish to keep private. Second, there is a fear of fraud or identity theft that brings a risk of economic loss to the individual or the threat of personal harm.

At the most general level, the private-sector collection of data occurs as individuals engage in the routine business of purchasing clothing, filling in credit-card applications, or making their annual gift to their favorite charity. Now the records of these myriad transactions accumulate with greater efficiency due to advances in digital technology. This digital technology has created new opportunities to better serve customers through sharing of this data by affiliates and the exchange of this data with third parties.

It is primarily this latter, third party phenomenon, though often poorly understood, that has fostered a perception of risk (such as identity theft or other forms of fraud,) or harm (such as "on-line stalking" or "surveillance", etc.). However, it must be borne in mind that data sharing with recognized affiliates and commercial third parties is a very different issue from questions of fraud, "stalking", and other already illegal activities which all interested parties strongly oppose, but which often confuses the terms of public debate. For example, the already illegal activity of stalking typically involves individuals already known personally to the victim, not "third-party" strangers.

Nevertheless, these perceptions have led regulators around the world to begin implementing a range of privacy laws that establish the terms by which consumer information may be collected and shared.[2] In Europe, the European Union passed a Privacy Directive in 1995. In the United States, recent federal legislation has included the Children's On-line Privacy Protection Act (COPPA, effective April, 2000); the Health Insurance Portability and Accountability Act of 1996 (HIPAA), and the Gramm-Leach-Bliley Act (GLB), also commonly referred to as the Financial Services Modernization Act.

Federal legislation thus represents the second, more immediate reason for privacy becoming an issue of legislative concern in California, if not in every state capitol. The Gramm-Leach-Bliley Act, for example, recognizes that many of the financial services it regulates are regulated jointly or primarily at the state level--as with insurance.

Thus, state legislators and regulators must decide what they wish to do about privacy, and how restrictive they wish to be. The Gramm-Leach-Bliley Act, to stick with our example, establishes a floor of "notice" (the least restrictive option) for data sharing with affiliates and "opt-out" (the moderately restrictive option) for data-sharing with unaffiliated third-parties. States such as California are thus enabled to make data protection more restrictive than at the federal level, such as by employing the most restrictive (opt-in) approach for third parties, for example.

Whether states SHOULD do so is an open question. The authors of this study do not argue for any particular view. On the contrary, we believe that this is a decision that should be made by the citizens and elected officials of California in the full light of the best available facts. Among such facts are those we present in this study. We believe legislators owe it to their voters that any proposed privacy restrictions should take into consideration the likely costs and lost efficiency that results from such additional regulation. As will be explained in more detail below, such lost efficiencies and economies can impose hidden but very real and burdensome costs on California consumers, employees, charities and taxpayers.

[2] Turner and Varghese, op. cit.

2.0 THE FINANCIAL SERVICES SECTOR

Changes in access to consumer data by third parties (and affiliates) can be seen as impacting the finance sector in several crucial ways. These include additional costs to the search for and targeting of customers through higher advertising costs; losses from the inability to assess and fine tune risk in the extension of credit (resulting in higher interest rates); more expensive monitoring of data management and protection; greater losses from fraud as a result of a greater inability to detect malfeasance; higher prices resulting from new barriers to entry posed by larger costs of gathering information[3], and less access to credit for consumers.[4] Of these, the following three have been measured to varying extents:

- Restrictions on information sharing raise the **search costs** to companies. The cost of advertising (mail and telephone solicitations) and transacting (call centers needed to process transactions) increase as a result of the loss of pooled resources and capacity to target products to customers who are more likely to demand them. For customers, these translate into higher prices to the extent that costs are passed on. Furthermore, customers also bear non-financial costs in the form of search times and exposure to 'noise' or unwanted solicitations.

- A ban on third party information sharing reduces the ability of financial firms to **assess and fine tune the risk** involved in extending credit to customers, as well as securitizing debt and thereby increasing the pool of credit available. As evidenced in societies with restrictive data transfer regimes, interest rates climb to compensate for an inability to clearly identify risk.

- Finally, restrictions on data sharing bring costs in the form of **compliance** procedures, requiring new monitoring systems, especially for firms that conduct on-line business.

2.1 Search costs

Ernst and Young's study of the estimated savings in terms of money and time from sharing information with affiliate and third parties under the direction of Cynthia Glassman provides a basis for an evaluation of possible costs of

[3] For example, the seven largest banks in France, the Western European country with the most restrictive data transfer regime, account for 96% of all banking assets. Western Europe as a whole has one-tenth the number of US financial service institutions even though it has nearly 50% more households.

[4] According to Walter Kitchenman's "US Credit Reporting: Perceived Benefits Outweigh Privacy Concerns" (The Tower Group, 1999). European consumers have access to one-third less credit as a share of GDP.

restrictions on data transfer.[5] Their survey of members of the Financial Services Roundtable, whose revenues comprise more than 25% of the sector's total earnings, suggests that data sharing with affiliates and third parties yield savings of $195 per customer household and 4 hours per annum. We use their study as a preliminary base for estimating the costs of restrictions on information sharing.

For the 90 members of the FSR alone, a switch to restrictions on transfers to third parties in California translates[6] into $1 billion in lost savings and over 25 million hours per year for consumer households in the state. The size of lost savings to consumers rises to nearly $2 billion and approximately 40 million hours if restrictions were extended to affiliates as well. These do not take into account impacts on the entire financial sector.[7]

The dynamic of freer information flows yielding lower search costs can be seen in various sub-segments of the industry. The automobile, property, and life insurance segments, as with most segments of the insurance industry, heavily rely on third party data for marketing. Another characteristic shared by the various segments of the insurance industry is the role of field agents. Namely, the insurance industry is an agent driven business, in which individual agents in the field are responsible for the bulk of the firm's marketing efforts.

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[5] See Ernst & Young LLP, under the direction of Cynthia Glassman, "Customer Benefits from Current Information Sharing by Financial Services Companies" for a description of the various sources of savings. Conducted for the Financial Services Roundtable. (Ernst & Young, December 2000).

[6] FSR members are representative of the sector as they represent the largest companies in the sector, accounting for approximately 26% of all revenue in the finance, insurance and real estate sector for 2000. Source: FSR, *Annual Report,* 2001, www.fsround.org and Bureau of Economic Analysis, Department of Commerce, www.bea.doc.gov. The members of the FSR are disproportionately commercial banks and insurance companies. The 50 largest firms in the finance and insurance sector accounted for 38.8% of all revenue in 1997; the 50 largest commercial banks account for 60.7% of all commercial banking revenue; the 50 largest insurance firms account for 60.9% of the subsector's revenue; also of note is the fact that the 4 largest credit card issuing companies account for 53.8%. (Bureau of the Census, 2000) Assuming that revenue is proportional to customer base, in terms of accounts receivable. consumer as opposed to business accounts receivable amounted to 28.5% of total receivable accounts, excluding real estate. (www.federalreserve.gov, Federal Reserve, 2001) FSR customer households as a share of total households in California were estimated as the same as for the country as a whole or 9.9 million of the 11.5 million California households.

[7] A straight translation from FSR members to the entire financial sector would of course yield a substantially larger figure. If we assume that the average savings of $195 per customer household extends to all firms in the finance sector, the total costs of restrictions on third party transfers would be approximately $4 billion, requiring approximately $495 million in additional advertising to compensate. The limitations of doing so stems from the fact that the efficiency of data use in all likelihood declines with the size of the financial institution, thus savings may not translate into an average of $195 per customer household. As the size of the enterprise declines, the saving of information sharing is expected to decline if there are economies of scale in information gathering. To the extent that this is the case the ability of smaller financial institutions to share information with larger ones offsets their cost of information gathering disproportionately and reduced barriers to entry.

Marketing: In the past, field agents relied on a variety of data sources for prospect marketing, most of which was either publicly available data (the white pages), public record data (driver's license and motor vehicle data) or self-reported (inbound calls). The days of cold-calling households to pitch pre-packaged product offerings, however, are on the decline. Today, field agents for automobile insurers are reaching out to prospective policyholders through multiple media using sophisticated database marketing techniques.

Prospect marketing and lead generation now occurs through the field agents with the assistance of the home office and outside information service providers, such as Acxiom, Equifax, and Trans Union. In short, the process works as follows:

On a contractual basis, the home office provides an information service provider with data on its policyholders (knows as the firm's house file). The information service provider, in turn, engages in list hygiene (updates contact information) and appends the data in the house file with additional third party data. The appended data is then analyzed in order to identify common attributes among the entire group and subgroups of policyholders: e.g., among new policyholders, policyholders for more than 10 years, premier package policyholders. These leads can also be open-ended, allowing agents to select individuals according to criteria they establish based on personal experience and local knowledge.

Joint Marketing and CRM: One of the benefits policyholders enjoy is the effort made by the policy provider to anticipate and serve their needs. Communicating with customers in order to understand them and identify their needs is a practice commonly referred to as "customer relationship management," or "CRM." Sometimes the insurer may not be able to directly satisfy all the needs of its customers, but may be able to do so through joint marketing arrangements.

For example, a new policyholder receives inserts in his/her monthly statement for a discount on a passive alarm system or a defensive driving course offered locally usually by third parties that would substantially decrease the policyholder's monthly premium payments. A more restrictive data regime that includes affiliate sharing, then, would further impede cross-marketing and deny a policyholder the benefits from economies of scope captured by most insurance companies. In other words, rather than one stop shopping and seamless service, a consumer will be forced to contact service providers separately.

Market Reach: Ordinarily, individuals who are employed or who have substantial personal wealth have access to corporate or private insurance advisors who are able to provide expert counsel and ensure that their insurance needs are fully met. The vast segment of the American population comprised of temporary or seasonal workers (such as migrant labor), or who are living in economically disadvantaged circumstances are disproportionately reliant upon directly marketed insurance policy offers – either through the mail or telephone. The

identification of individuals in this population segment with unmet insurance needs, as well as accurate contact information and data for assessing risk for underwriting purposes are made possible through the use of third party information. An opt-in restriction, then, would not only reduce the percentage of policyholders in this cohort, but would also likely increase the average premium payments necessary to secure coverage.

Michael Staten and Fred Cate's case study of MBNA's provision of credit cards offers a basis for examining the impact of rising search costs for the credit card market.[8] While the use of a single company makes difficult the extension of findings to the entire sector, it should be noted that MBNA services 15% of all outstanding US MasterCard and Visa balances and also that the eight largest credit card issuing firms account for approximately 75% of all revenue in the sector. Staten and Cate found that a blanket opt-in requirement would raise the direct mailing costs of booking a new account by 22%.[9] This cost increase is equivalent to an 8% decline in revenue. Assuming a similar cost structure for the 8 largest credit card providers, which account for approximately 75% of the sectors revenues, the loss in revenue of a California opt-in would amount to approximately $27 million per year.

2.2 Risk Assessment: Insurance, Home Mortgages and Credit Cards

An additional source of costs to consumers and the economy has resulted at various times and places from the fact that credit information is less mobile, making risk assessment less accurate. Consumers generally have a harder time acquiring credit for any given interest rate in societies in which data does not move easily. The ability to use demographic information, credit bureau data and existing data about customers from third parties and affiliates has enabled companies to identify and target low-risk consumers. This practice has contributed to the fall in consumer interest rates, as two studies found for the mortgage market and for credit cards.[10] In some ways, it is in the effect on

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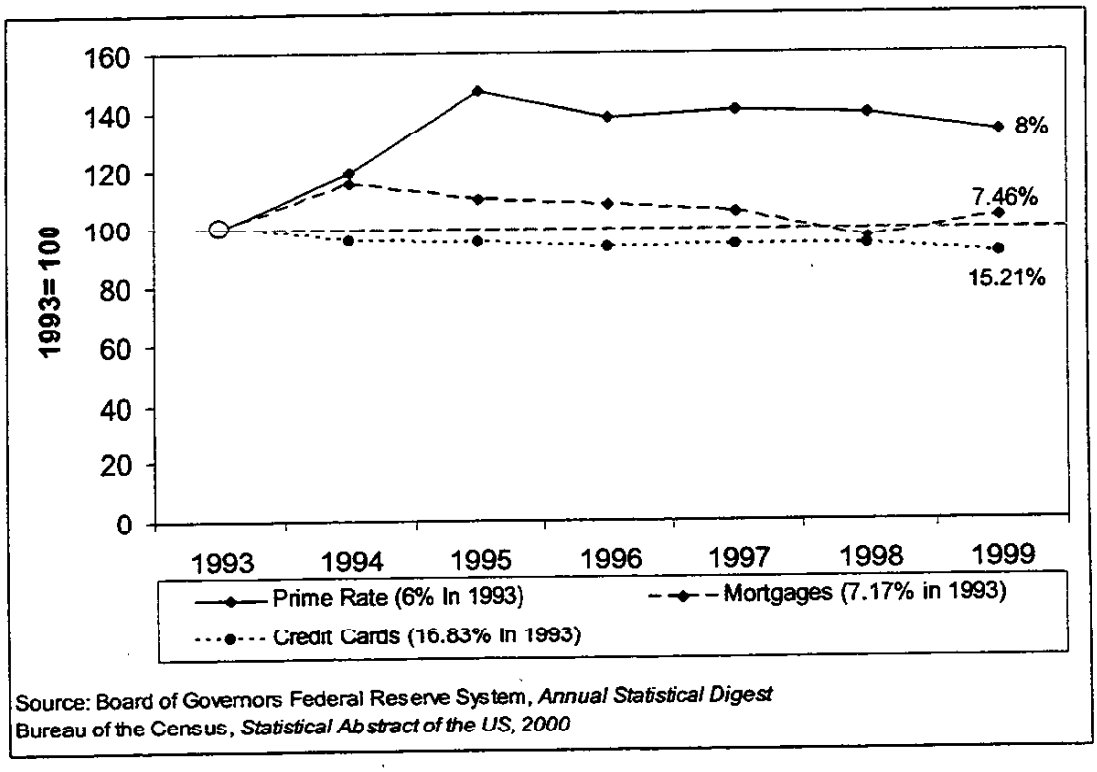
[8] Fred Cate and Michael Staten, "The Impact of Opt-In Rules on Retail Credit Markets: A Case Study of MBNA." Forthcoming, February, 2002. To be available at: www.understandingprivacy.org

[9] The opt-in requirement for affiliates assumes that the MBNA would require consent to utilize credit information about those prospects who also held another MBNA account save for information concerning the customers handling of the MBNA account. That is, the estimates assumed that MBNA could not use information from credit reports and the customers standing with other creditors that it *already* possessed in the context of another MBNA account for the purposes of tailoring a new one.

[10] Walter Kitchenman, "US Credit Reporting: Perceived Benefits Outweigh Privacy Concerns." (The Tower Group, 1999) ; Fred Cate and Michael Staten, "The Impact of Opt-In Rules on Retail Credit Markets: A Case Study of MBNA"; John Baron and Michael Staten, "The Value of Comprehensive Credit Reporting: Lessons from the US Experience." Staten and Baron, following Stiglitz and Weiss (1981) on lending markets without information sharing, offer a reason why interest rates fall (rise) when data is mobile (restricted) "When lenders can't distinguish good borrowers from bad borrowers all borrowers are charged an average interest rate that reflects

interest rates that restrictions on data transfer most sharply impact corporate revenues and consumer prices. The following figure shows the decline in the interest rate on credit cards and 30-year conventional mortgages relative to the prime rate. We believe that risk fine-tuning has been one reason for this decline.

FIGURE 1: EVOLUTION OF PRIME, MORTGAGE AND CREDIT CARD INTEREST RATES, 1993-99



Source: Board of Governors Federal Reserve System, *Annual Statistical Digest*
Bureau of the Census, *Statistical Abstract of the US, 2000*

Mobile consumer data has yielded lower interest rates through two avenues, risk fine-tuning and securitization of debt, both of which depend on the use of consumer information to assess risk. Lenders are able to use past credit history and personalized data to extend lower interest rates to less risky consumers. The ability to identify risk levels also enables financial markets to securitize debt by risk levels, as Fannie Mae does. The purchase of consumer debt by investors in secondary markets channels additional monies into lending institutions expanding the amount of credit available for consumers. The liquidity in the system has contributed to lower mortgage interest rates.

2.2.1 The Case of Insurance Premiums

their pooled experience. But, this rate is higher than good borrowers warrant and causes some good borrowers to drop out of the market, thereby shrinking the customer base and further raising the average rate charged to good customers." (p. 5.) Also see Joseph Stiglitz and Andrew Weiss, "Credit Rationing in Markets with Imperfect Information." *American Economic Review.* 71: 393-410 (1981)

Without a doubt, one of the industries likely to be most affected by an "opt-in" restriction on the use of third party data for commercial purposes is insurance. Firms in the different segments of the insurance industry are heavily dependent upon access to rich sources of third party data for marketing purposes, for risk assessment, for underwriting, and claims verification and fraud prevention.

An opt-in data restriction will increase the marketing and administrative costs of insurance companies in every one of its segments. In addition, the spread of premium payments may converge, all other things being equal, as the ability of insurers to differentiate lower risk from higher risk candidates is reduced. This phenomenon was discussed in the context of credit cards, where the reward for good behavior (a history of meeting credit obligations) would be reduced in order to cover the additional costs from bad loans made to higher risk candidates who default, though the insurance sector contains its own peculiar dynamics that may exert counter pressures.[11] This pattern is an example of the distortions that result from the lack of efficient distribution of information.

Gauging the impact of an opt-in data restriction on the broad insurance industry is a difficult task. This is largely due to the fact that the data needs of each individual segment are relatively unique. For instance, age data that is important to life insurers to assess an applicant's risk to evaluate her likelihood of purchasing a policy and to determine the appropriate policy and premium level, is relatively unimportant to property insurers, who are more concerned with other factors.

When determining the appropriate premium for a coverage policy requested by an applicant, an insurer will use third party data to both ensure that the individual is who he/she is claiming to be (most common when the transaction is conducted online) and to verify the validity of the information provided on the application.

[11] In the absence of third part data restrictions, it is possible that lower risk policyholders are likely to pay more while a greater number of higher risk policyholders will pay less, on average, pay less. With that said, it is important to note that the way economic agents cope with a lack of information or information asymmetries can vary from industry to industry. This is clear from the various treatments of asymmetric information by Joseph Stiglitz and his collaborator. In their path breaking work, Rothschild and Stiglitz argue that when confronted with different types of individuals – high-risk and low-risk – which insurance providers could not differentiate, there exist equilibrium solutions in which the choices offered screen insurance buyers through self-selection. For example, insurance providers can offer two separate insurance contracts: one with partial-coverage and small deductibles and another with full-coverage and high deductibles. Low risk individuals would rationally choose the former whereas high-risk individuals would opt for the latter. The contracts would mitigate against adverse selection and the deductibles control for moral hazard. The salient point here is that the effects of limited information on an industry is peculiar to its structure, products, etc., and thus increases in insurance premiums do not follow or do not follow in the same way that increases in credit interest rates do. Cf. M. Rothschild and J. Stiglitz. "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information" *Quarterly Journal of Economics*. 95:629-649 (1976)

For example, it is frequently necessary to confirm that an applicant does not have undisclosed drivers living in their household. An applicant with a 15 year old son who is ineligible to drive at the time of application, but who will begin driving shortly thereafter, would be treated very differently than an individual without any teenage children.

In addition, automobile insurers routinely use public record data such as traffic reports and driver's license information from the state department of motor vehicles, as well as claims reports from companies such as DATEK to verify information on an application and assess an applicant's overall risk. In many jurisdictions, individuals with a history or pattern of traffic violations and accidents will usually be required to pay higher premiums than those who have a spotless driving history. Access to third party data is also important for identifying potential fraudulent claims, such as where the same individual submits multiple claims for the same injury to different companies. Third party data may also be important for identifying other patterns of claiming behavior that may indicate higher risks which, if undetected, will result in lower risk drivers being required to subsidize higher risk drivers.

Here, it is important to emphasize that data use for marketing purposes is not used for underwriting and vice versa. In fact, information service providers physically separate their databases used for marketing services from those used for decision products (*e.g.* credit reports, individual reference services, etc.). Furthermore, as defined under the permissible purpose clause of the Fair Credit Reporting Act (FCRA), credit reports can only be used expressly for underwriting, unless a consumer provides written consent, in which case it may also be used for claims analysis and other related purposes.

The value of using credit reports for underwriting cannot be overstated, as the use of credit reporting data is pervasive among automobile insurers. Insurers have found a strong positive correlation between a high credit score and a low loss ratio (the loss pay-out by insurers divided by the premium paid by the policy holder, a.k.a. "loss potential"). In all likelihood, individuals who pays their bills and are able to hold a job over time to provide for their needs will tend to be responsible with respect to driving and the upkeep and maintenance of an automobile or a home. In short, a track record of responsibility in one area is a powerful indicator of responsible behavior in other areas.

Currently, in California, as a result of state law and recent directions from the state's Insurance Commissioner, credit scores can no longer be used by insurers for the purposes of risk assessment and underwriting, forcing insurers to revert to less accurate methods of assessing risk. Insurers may use an individual's credit report, but not their credit score for insurance scoring. This method is more subjective and time consuming than the use of the highly predictive credit score. Given this, there is good reason to believe that consumers will eventually be confronted with higher premium prices, as the overall industry loss ratio

increases as a result of the issuing of policies to high risk candidates at relatively low premiums.

2.2.2 The Case of Mortgages

Assessment of the impact of data restrictions on third party transfers in California must consider the resulting inability to fine-tune risk and securitizing debt by risk level in a secondary debt market. The effect of these on mortgage interest rates are perhaps the most significant, as mortgages account for $4.48 trillion of the $6.46 trillion in household outstanding debt in 1999.[12] In 1999, $411 billion was borrowed in the US for home mortgages in comparison to total household borrowing of $542.9 billion.[13]

- A hypothetical 1% increase in the mortgage rate for 1999 California home buyers from 7% to 8% amounts to approximately an additional $418 million per annum on all outstanding 30 year conventional, fixed-rate mortgages. A 2% increase, or roughly the difference one study found to obtain in Western European societies with strong restrictions on third party information sharing, amounts to an additional $836 million in interest payments per year.

- These increases also imply a loss in tax revenue since interest payments are deducted from taxable income. Assuming the same demand for housing, by the fifth year (2004), more than $2.1 billion, at the same 1% higher rate and more than $4.2 billion, at 2% higher rate, that would otherwise have likely been subject to taxation, becomes exempt from taxable revenue (a loss of more than $170 million.[14])

The costs of course extend beyond higher finance charges as the impact on home ownership rates must be taken into consideration. We use as the basis here the results of a study by a Tower Group study under the direction of Walter Kitchenman, which compared liquidity effects of the relatively liberal US data transfer regimes with the more restrictive ones found in Western Europe and found that mortgages in the US tend to be systematically as much as 200 basis points lower than in Western European states.[15] He offers three reasons for higher rates grounded in data transfer. The inability to fine tune risk results in higher interest rates. One mechanism for pushing rates higher is the fact that some consumers (low-risk ones in this case) subsidize higher risk ones. As

[12] Federal Reserve, *Flow of Funds Accounts of the United States*. p. 8 (Washington DC: Board of Governors of the Federal Reserve System, June 9, 2000)
[13] Federal Reserve, *Flow of Funds Accounts of the United States*. p. 7.
[14] Assuming an average income tax rate of 4.1% We assumed an average rate of 4.1% on taxable income, based on California's 2000 Income Tax table, using average household gross income and assuming an even distribution between single/married filing separately, married filing jointly, and Head of Household..
[15] Walter Kitchenman, "US Credit Reporting: Perceived Benefits Outweigh Privacy Concerns." (The Tower Group, 1999), p. 7.

many find the costs high relative to their risk levels and thus the value conferred, they will exit from the market, driving the average higher. Fine-tuning risk helps to create a tiered market and thereby reduces the cross-subsidy lower-risk consumers provide to higher risk ones. The ability to clearly identify risk also enables the development of a market in securitized debt, increasing the supply of credit in the market and thereby lowering interest rates. Finally, the difficulty of identifying consumer's preferences creates a barrier to entry and encourages anticompetitive outcomes, as the larger institutions can utilize their information bases in monopolistic fashion.

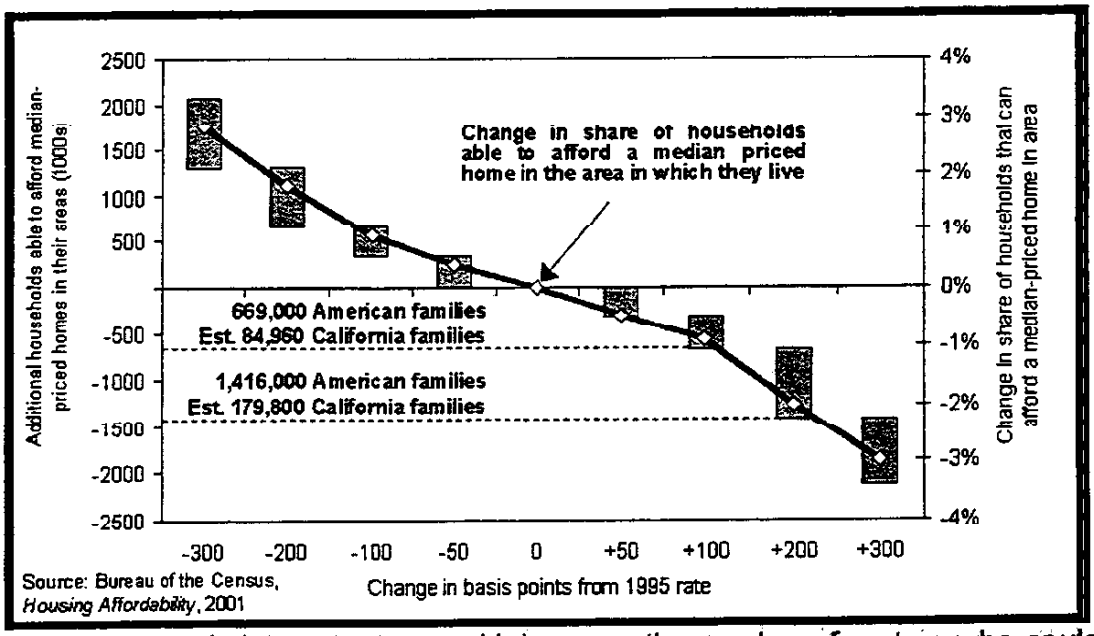
The US Census 1995 housing affordability study permits an assessment of the costs of higher interest rates on home ownership.[16] This provides a basis for assessing further impacts on home construction, employment and tax revenue (in so much as mortgage interest payments are deducted from taxable income) through estimations on what these would have been had the interest rate been higher.[17] It should be noted that there were 667,000 homes sold in the US in 1995; by 2000, that figure rose by more than one-third to 877,000.[18] The following figure shows the impact of interest rate increases on home ownership affordability of median priced homes for Americans in the areas in which they live.

[16] The last comprehensive US Census study was for 1995. We use it here instead of other possible sources for the reliability of the data. At the 1995 interest rate of 8.67% on a 30 year mortgage, only 6.7% of the 21,425,000 US renter households were able afford a median-priced home in the area in which they live. A 2% increase in the interest rate decreases that figure to 6.1%.

[17] Of course had the interest rate been higher as a result in large measure of poor debt securitization, the general impact on economic activity would in all likelihood make the costs listed below actually greater. Here we examine the sold housing market.

[18] Source: Bureau of the Census (2000).

FIGURE 2: HOUSING AFFORDABILITY AND MORTGAGE INTEREST RATES, 1995



A 2% increase in interest rates would decrease the number of renters who could afford to own homes where they now live by 119,000. When we recall that 667,000 homes were sold in the United States in 1995, this figure is significant, in so much as first time home ownership accounts for a substantial share of home sales.[19] The impact on home ownership, while wholly negative, cannot be precisely estimated as it is unclear how many families would willingly move to poorer neighborhoods, a move which would have its own costs in the form of poorer social services. But we can make some estimates based on very conservative assumptions.

For the purposes of this study, we make the following assumptions. California home purchases are proportionate to its share of total American households and weighted by its home ownership rate as a share the overall US rate. These imply that California accounts for 9.6% of all US home sales.[20] We assume that the drop in homes demanded is proportionate to those priced out of home ownership as a share of those owners who can afford a home plus that share of renters who can afford a home. That is, of all homes sold, approximately 40% were purchased by first-time home buyers (or renters). 8.9% of renters who could afford a home at the current rate would be priced out of homeownership by a 2% increase in the interest rate. We assume that 8.9% of homes sold to first-time homer buyers would not be sold a result. We similarly assume that a 2% interest

[19] Bureau of the Census, 2000.The principal hurdle faced by would-be homeowners appears to be the cost of down payments. See Howard Savage, "Who can afford to buy a house in 1995?" (Washington, DC: Bureau of the Census, August 1999), available at www.census.gov for definitions and methodology.

[20] See Howard Savage, "Who can afford to buy a house in 1995?"

rate increase would price out of the housing market 4% of current homeowners who can afford a median priced home in their neighborhood, and we assume that 4% of these homes would not be sold.[21]

- An increase of 1% on the interest rate of 30-year mortgages, from 8.67% to 9.67% (with 5% down) would result in[22]
  - Approximately 1,850 fewer homes sold as fewer families would be able to afford median priced homes in their neighborhoods
  - $322.6 million in lost home sales
  - Nearly 1,700 jobs lost in the residential construction sector[23]
  - An additional $1,760 per year for each new home buyer in interest payments or nearly $110 million per annum for 1995 home buyers[24]
  - Had an opt-in system been put in place in 1995, larger exempt income that does not benefit the earner would also yield tax revenue losses of $28 million for 2000 assuming the same interest rate and sale price.

- An increase of 2% in the mortgage interest rate from 8.67% to 10.67% would through its impact on California renters alone result in approximately
  - Approximately 3,830 fewer families able to afford median priced homes in their neighborhoods and thus fewer homes sold
  - $665.8 million in lost home sales
  - Nearly 2,100 jobs lost in the residential construction sector
  - An additional $3,520 per year for each new home buyer in interest payments or nearly $214 million per annum for 1995 home buyers
  - Had an opt-in system been put in place in 1995, larger exempt income that does not benefit the earner would also yield tax revenue losses of $56.8 million for 2000 assuming the same interest rate and sale price.

On the one hand, we have not taken into consideration the fact that many may purchase homes in cheaper neighborhoods. But on the whole, such a move would have to take into account hard to quantify costs such as poorer social services and schools.

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[21] Assumed a home sale price averaged to the 1995 US average home selling price of $173,800.
[22] The US Census Housing Affordability study assumes an 8.67% interest rate.
[23] We have made the assumption that the ratio of labor hours to output remains constant. Far more likely is the fact that given falling sales, jobs would be cut in greater proportion in order to maintain profit margins. Employment losses as a result of lost real estate loan revenue in the banking sector can be expected to be very small, less than 0.004% of the US banking sector, all else being equal. See Ben Craig, "The Long-Run Demand for Labor in the Banking Industry." *Federal Reserve Bank of Cleveland* . p. 27 for the regression coefficients for labor demand in the sector. www.clev.frb.org/research/review97/bencraig.pdf.
[24] On a $173,800 home with a 5% down payment and a 30-year mortgage, compounded quarterly.

The impact would be felt not only by new home buyers but also perhaps by those with adjustable rate mortgages (ARMs), some of whom may be priced out of homes in their neighborhoods. Adjustable mortgages account for approximately 20.1% of all outstanding mortgages and mortgage backed securities as of June 2001.[25] ARMs would rise if information restrictions limit the effective securitization of debt, reducing the overall supply of credit in the system. The lower levels of credit as a share of GDP in Europe can be tied to the institutional hurdles – including privacy restrictions – that limit the development of a secondary debt market. Assuming that California accounts for 9.5% of these outstanding mortgages, valued at $3.69 trillion, a 1% increase in the mortgage rate for California mortgages would result in an additional $738 million in interest payments and a 2% increase would result in an additional $1.48 billion. Because the impact of information restrictions on ARMs would operate through the its impact on liquidity, any precise prediction of its magnitude is extremely difficult; in all likelihood, the increase in existing ARM rates would remain well below the increase in fixed mortgage rates. Yet, given the size of this market, even a small increase comprises significant costs for consumers.

The impact is permanent in the sense that while interest rates may move up and down but they will most likely be higher than they would have been under a less restrictive (opt-out) regime. The increase in mortgage interest rates is not transitory and represents an increase in the price of home mortgages for any given level, for any given moment.

2.2.3 The Case of Credit Cards

As with home mortgages, the transfer of consumer information from credit bureaus and other third parties has helped to reduce the interest rate on consumer retail debt in the past decade. Cate and Staten's case study of MBNA provides a basis to assess the impact of opt-in rules.

Credit card debt accounts for approximately 10% of outstanding consumer loans, or $554 billion in outstanding receivables on credit cards. Outstanding credit card debt for California households amounted to approximately 14% of the total or approximately $79 billion.[26] The figure below illustrates more clearly how credit card interest rates have fallen and, more importantly, the distribution of interest rates further suggests that issuers are able to fine tune interest rates, offering significantly lower rates for less risky customers than to more risky ones

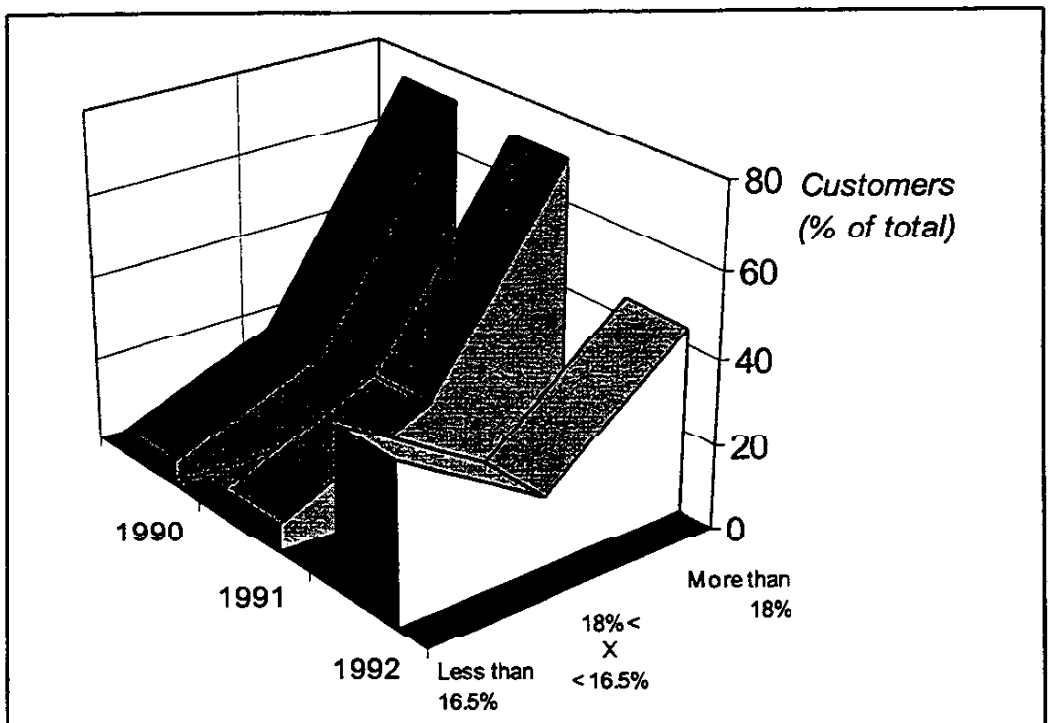
[25] SRM Research Corp. We assume an interest rate of 5.67%. ARMs account for 38.12% of residential mortgage loans owned by the nation's banks, thrifts, and credit unions and 5.4% of Fannie Mae and Freddie Mac outstanding mortgage backed securities. Of course, part of the claim here is that it is the ability to carefully assess risk that permits mortgages to be securitized and thereby remain relatively low.

[26] Source: CardTrak.com, drawn from BankCard Barometer and CardData Online.

as a result of being able to identify them. The initial year, 1991, witnessed the introduction of tiered-pricing based on greater risk fine-tuning.[27]

[27] For a comprehensive description of the evolution and a comparison with more restrictive information transfer regimes, see John Baron and Michael Staten, "The Value of Comprehensive Credit Reporting: Lessons from the US Experience."

FIGURE 3: DISTRIBUTION OF BANK CARD INTEREST RATES, 1990-92



Source: *CardTrak* , cited in Cate and Staten, September 21, 2001

Credit card interest rates changes fell consistently as the prime rate continued to climb. An opt-in regime for California may encourage a return to higher rates in three possible ways. Firstly, the increased costs of acquiring new customers (see above) would be passed on. This cost is likely to be small as this cost will most likely be passed onto all American credit card users. Secondly, the inability to target customers creates new barriers to entry, resulting is declining competition. This cost is also likely to be spread across American credit card holders. Thirdly, the inability to fine tune credit and assess risk results in an averaging of interest rates that drives good (low-risk) customers away, raising the average risk level of remaining credit card customers and thereby the interest rate. This is less likely to be spread across all US credit card consumers.

The exact cost is difficult to estimate. But the very rise of the large credit card suppliers was in large measure a product of risk fine-tuning, with the result that a significant share of cards issued are done so with interest rates tiered by risk. That is, a considerable share of the credit card market operates through a tiered system. The loss of access to personal information and the ability to identify potential clients positively and not merely negatively (i.e., defaults, bankruptcies) may well result in a return to higher interest rates.

A rise in credit card interest rates for California consumers entails considerable costs. A 50 basis points increase in the interest rate on California outstanding credit card receivables costs consumers approximately an additional $460 million; a 100 basis points increase similarly results in approximately $920 million in additional costs.[28]

2.3 Compliance Costs

While a study that examines full compliance costs has yet to be done, Robert Hahn's study of the impact of the costs of data restriction for online commercial activity is illustrative. Given that the largest financial firms have significant online business, the additional costs Hahn identifies apply. He estimated an average compliance cost of $190,000 per company, which we adjusted downward to $158,000.[29] These costs stemmed from consultants and new software to protect data. This cost would apply to all businesses that have substantial transactions with consumers and would not be weighted by consumer business as a share of total business.

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[28] Differences in fact are not quite fact are not quite linear due to compounding. Total payment = Principal*(1 + r/m)^{mt}, where r is the interest rate, m is the compound periods (here 365, i.e., compounded daily) and t is the period (=1). But the differences between an arithmetic increase and the non-linear estimation remain relatively small. While the impact of rising prices in the form of rising interest rates on credit demanded is hard to predict precisely, a 10% decline in consumer retail credit demanded in California can be expected to lead to a decline in national bank employment of between approximately 0.08% and 0.12% or between approximately 1,300 and 2,000 workers across the US, again all else being equal, and assuming that a labor demand function similar to that of banks holds for credit card providers and California credit card balances are held in equal proportion by providers across the US. Ben Craig, "The Long-Run Demand for Labor in Banking." p. 27, and Bureau of Labor Statistics, www.stat.bls.gov. Given the concentration of finance sector employment in Los Angeles and San Francisco, approximately 10% of all jobs in the finance sector, these areas can be expected to be disproportionately hit. Daniel Immergluck, "Cities and Finance Jobs: The Effects of Financial Services Restructuring on the Location of Employment." Brookings Institute Discussion Paper. November 1999. p. 3.

[29] Hahn (Washington DC: AEI/Brookings Joint Center for Regulatory Studies, 2001)) found an average cost of $190,000, but the average may be skewed upward by the presence of one heavy outlier. Removing outliers (responses more than 2 standard deviation from the mean) reduced the cost – outliers were found only above the mean – to $158,000. Costs can be expected to be between $66 million and $242 million, assuming [29]that they fall within one standard deviation of the restricted sample mean. Robert Hahn, "An Assessment of the Costs of Proposed Online Privacy Legislation." Properly, the costs would be incurred by all firms that substantially transact online with California consumers. The number of firms is in all likelihood significantly larger than assumed here. One survey by the Office of the Comptroller of Currency found that 46.2% of FDIC- FDIC-insured commercial banks had no plans to offer Internet services in 2001 or beyond. That is, 53.8% of FDIC-insured commercial banks did or had plans to offer Internet banking. See Office of the Comptroller of Currency, *Economics Working Papers.* (Washington, DC: Congressional Information Service, September 2001) p. 43. If we assume that this share holds for California commercial banks and credit intermediation firms, the compliance cost would rise to approximately $1 billion.

Assuming that only 10% of the approximately 9800 credit intermediation firms in California[30], or large firms are required to comply, the compliance costs of opt-in would exceed $154 million.

Unlike search costs and increased prices from a loss of ability to fine tune risk, these costs are one-time. Yet, we have used very restrictive assumptions here, and in all likelihood the number of firms that would be required to update systems to comply would be considerably larger.

[30] Nationally, firms with more than 10 establishments account for 13% of all firms in the sector but nearly 75% of all revenue and79% of all establishments. Even excluding those firms with more than 100 establishments, this set of firms average more than $138 million per firm. We assume a similar distribution for credit intermediation in California; 10% errs on the side of conservatism, Bureau of Census, *Establishment and Firm Size: Finance and Insurance, 1997 Census. (Washington, DC: Bureau of the Census, 2000) p. 40, Table 2.*

3.0 CHARITABLE GIVING IN CALIFORNIA: OVERVIEW

It is estimated that an opt-in data restriction on the commercial use of third party data would reduce statewide donations to California-based charitable organizations by $1.57 billion. Given the unique characteristics of giving in California, there is good reason to believe that California-based nonprofit organizations would suffer more than similar out of state organizations. This section analyzes charitable giving in California during the late 1990s (the most recent dates for which data are available).

Results from a recent groundbreaking study on patterns of charitable giving and volunteering in California, the nation's largest state with more than 35 million residents and 25 million adults (over 18 years of age), rank Californians significantly above the national average both in terms of how many people give to charities, and how generous they are.[31] The following table offers some of the results of a survey of charitable giving conducted by the Institute for Nonprofit Organization Management at the University of San Francisco.

Table 1: Dimensions of Giving, California and U.S.

	Contributing Households				All Households		
	California			*U.S.*	*California*		*U.S.*
Categories of Giving	**%**	**Median**	**Mean**	**Mean**	**Median**	**Mean**	**Mean**
Total giving	91.7	$628	$1,866	na	$538	$1,712	Na
Total giving as % of income		1.9	4.5	na	.8	3.0	Na
Giving to individuals	57.4	$200	$1,006	na	$20	$577	Na
Giving to individuals as % of income		.5	2.4	na	>.1	1.0	Na
Giving to charitable organizations	89.9	$375	$1,247	$1,017	$300	$1,121	$696
Giving to charit. orgs. As % of income		1.2	3.0	2.2	.5	2.2	1.7
Income	71.7	$37,000	$49,198	$46,637	$35,000	$47,685	$41,484

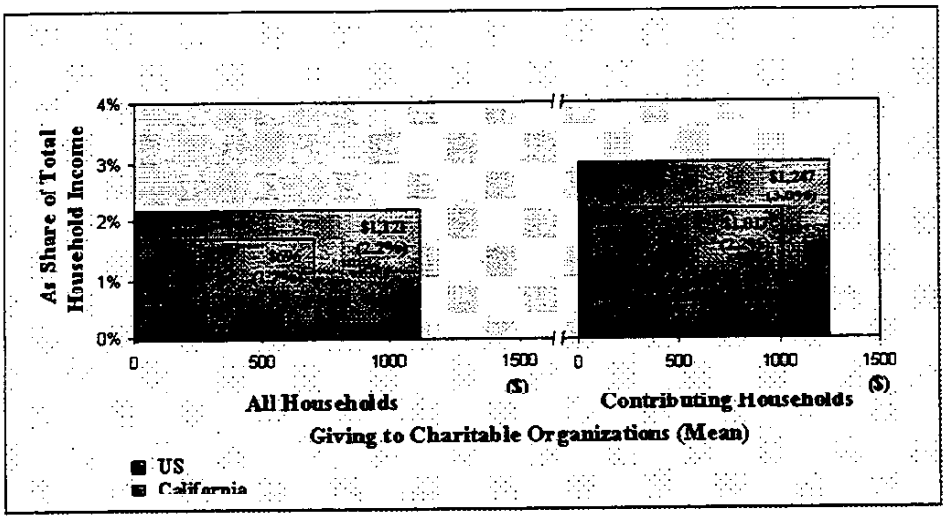
Source: "Giving and Volunteering in California" by Institute For Nonprofit Organization Management

90 percent of respondents to the survey conducted by Institute for Nonprofit Organization Management at the University of San Francisco reported having given to a charitable organization "during the past 12 months." This is 29 percent above the national average.[32] Respondents to the survey also demonstrated a

[31] O'Neill, Michael and William L. Roberts. "Giving and Volunteering in California," Institute for Nonprofit Organization Management, College of Professional Studies as the University of San Francisco. May, 2000.
[32] *Ibid.* p. 3.

much greater level of generosity with respect to both formal giving (person to institution) and informal giving (person to person). Indeed, as **Figure 5** shows, the percentage of household income contributed to charitable organizations is 36 percent higher for Californians than for the rest of the nation.[33]

FIGURE 4: US AND CALIFORNIA CHARITABLE GIVING IN $ AND AS A SHARE OF HOUSEHOLD INCOME



Total giving to operating charitable organizations in California during 1999 amounted to $16.68 billion.[34] This figure represents 12 percent of the national total. There were 25,538 operating charitable organizations based in California that reported in 1999 (filed an IRS Form 990). These included health and human services charities, as well as those oriented toward the arts, community development, the environment, social science research, science and technology, arts, culture, education, animal-related, civil rights and social advocacy among others.

[33] *Ibid.* p. 3. Reported levels of giving and volunteering in California are higher than those reported in other nationally-oriented surveys. One of the most plausible reasons for this may be that Californians are more effectively solicited by nonprofits. The ability of nonprofits to solicit from Californians is, of course, contingent upon their access to rich data bases and information services made possible by the unfettered flow of personal identifying information. A data restriction akin to an "opt-in" would, as this study has found, reduce the efficiency of nonprofits in soliciting funds and result in much lower statewide numbers for giving and volunteering in California.

[34] The National Center for Charitable Statistics identified 25,538 operating public charities that reported in 1999 (filed IRS Form 990). Organizations not required to report include religious congregations and organizations with less than $25,000 in gross receipts. For an explanation on state specific data, see http://nccs.urban.org/guide.htm

3.1 The Impact of Data Restrictions

This study focuses only on the restriction of the commercial use of third party data, and leaves un-addressed similar restrictions on affiliate sharing and the use of internal data.[35] In order to understand how human service charitable organizations would likely be impacted by an "opt-in" requirement, a brief discussion on how charitable organizations use third party data is necessary.

3.1.1 Use of Third Party Data by Charitable Organizations

In general, charitable organizations solicit donations in three ways: (1) person-to-person solicitations; (2) direct mail campaigns; and (3) via telephone solicitations. Each of these three methods is heavily dependent upon access to a robust pool of third party data. The process by which third party data is used by charities to solicit donations for each of the three techniques is briefly summarized below.

a. Person-to-Person (CA- $6.38 billion for operating charities)

This is a three-stage process involving prospect identification and research, prospect cultivation, and the delivery of the solicitation.

➢ *Identification and Research:* Charitable organizations use a variety of different methods – alumni rating sessions, information about acquaintances provided by board members, etc. – to identify individuals with a willingness and capacity to give. For those individuals judged to have the potential to make significant contributions, charities gather external information to further determine the capability of these individuals to give.[36]

➢ *Prospect cultivation:* At this stage, nonprofits seek to ensure that a prospect understands the mission of the charity. This may involve personal visits, invitations to dinner, or direct telephone calls. During this process, charities are also trying to determine how much should be asked for. Conventional fundraising wisdom is that prospective donors will give more if asked for a concrete amount. It is widely held that donors almost never give more than they are asked to give, and that asking them for a "stretch" gift often produces one. On the other hand,

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[35] **"Internal data"** refers to personal identifying information collected by an organization during the course of its interaction with a consumer or donor. This information typically includes name, address, phone number, amount of transaction or donation, credit card number and other data necessary to execute the transaction. Collectively, this information is referred to as an organization's "house file." **"External data"** refers to personal identifying information and other data about consumers that is collected and compiled from a variety of sources including public record data, self-reported data from surveys or product registration cards, or modeled information.

[36] Such information could include property records and assessments; filings with the Securities and Exchange Commission; Census Bureau information; and trade journal articles.

asking for too much almost always results in a rejection or a donation that is less than would have been the case had a more appropriate amount been requested. Thus, information pertaining to a donor's capability and willingness to contribute is critical in determining "the ask."

➢ *Solicitation:* Requests are made to individuals identified and an amount is determined based on the use of third party data and information provided by the prospect during the course of the cultivation process.

b. Direct Mail Fundraising (CA - $3.17 billion for operating charities)

Many charitable organizations rely upon direct mail as their primary method for raising funds. This type of fundraising is very effective in collecting a large sum of money in modest amounts, a necessity for most human service charitable organizations that must raise money in increments of $10 or $15 dollars. While more expensive than person-to-person solicitations, mature direct mail campaigns often raise a dollar of revenue for every 30 cents spent on fundraising.[37] External data is used in a number of ways in acquiring new donors and re-soliciting existing ones. Below is a brief description of how charitable organizations use external data to acquire new donors and re-solicit existing donors.

➢ *Acquiring New Donors:* Many charities acquire new donors by sending direct mail solicitations to prospects. They do this to raise revenues for existing and new programs, but also to compensate for past donors who have stopped contributing. House lists of active donors experience attrition or turn over and, without replacement, would eventually decay to a very small number of donors. Over time, nonprofits would "go out of business" if they could not attract new donors.[38]

Charitable organizations typically use two types of external information to prospect. First, they obtain mailing lists of individuals who are likely to give to the organization. For example, lists of high-income individuals and individuals who have recently made donations almost always yield higher response rates than random prospect mailings. Second, charitable organizations purchase

[37] This amount is over the donation life cycle. Initially, prospect mailing yields only about 70 cents for each dollar invested. However, once a prospect is converted to an actual donor, the response rate from the house file of donors is substantially higher than that from prospect mailing – which typically ranges from 0.5 percent to 2.5 percent. The additional contributions, then, after the conversion has occurred, more than outweigh the initial cost of prospecting. See, Turner, Michael A. and Larry Buc. "The Impact of Data Restrictions on Nonprofit Fundraising." January, 2002. A joint study conducted by The Direct Marketing Association's Information Services Executive Council (ISEC) and the Nonprofit Federation.

[38] *Ibid.* P. 16. The attrition rate for most nonprofits ranges between 20 percent and 40 percent per annum.

demographic information about their prospects and send mailings only to the demographic groups that are most likely to contribute. This secondary screening can increase the donations generated by a prospect mailing by a factor of two.[39]

➢ *Donor Re-Solicitation:* Contacting existing donors – names on the organization's house file – represents the primary source of funds for nonprofits as these individuals are more likely to donate in the future than is the average prospect. However, even with the company's house file, it is too expensive to contact the entire list because some donors may not be interested in donating. Many of the larger, national charities use sophisticated predictive modeling to target their mailings. This, of course, relies crucially on access to third party data. Mailings to existing donors typically result in response rates between 6 percent and 12 percent, with a dollar raised for every 25 cents spent.[40]

c. Telephone Fundraising (CA - $4.61 billion for operating charities)

Typically, the larger national charitable organizations call prior supporters – both active and lapsed donors – and to ask for donations to support their mission. Because they may not have a visible presence in a particular community, these organizations have found it extremely difficult to acquire new donors by making cold calls. Smaller nonprofit charities, on the other hand, with a clear mission and a visible presence in the region or locality in which they are based have traditionally enjoyed more success acquiring new donors by making cold calls to members of the communities in which they operate. It is noteworthy that even cold calls involve the use of third party data as lists of potential donors from within a community are purchased from or compiled by third parties.

➢ *Neighbor-to-Neighbor Campaigns:* A second less known form of cold call solicitations frequently used by larger, nationally known charitable organizations is a "neighbor-to-neighbor" (N2N) campaign. Such campaigns are referred to in the non-profit community parlance of the industry as "active" campaigns. In short, a large national charitable organization will call a prospective donor – Ms. Jane Doe, for example – and ask her to go door-to-door and/or write letters to her friends that she feels would be interested in either contributing to the organization or providing additional leads for further prospecting efforts. Again, as with the cold calls for straight charitable appeals discussed above, the N2N campaigns also make use of third party data, although much more so.

N2N campaigns utilize complex data models designed to identify those individuals most likely to participate in an active campaign. Experian does the

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[39] *Ibid.* P. 17.

[40] Warwick, Mal. *Raising Money by Mail.* P. 16. Some direct mail fundraisers have achieved response rates in excess of 20 percent on some mailings to existing donors. See Turner and Buc. Pp. 18-19.

modeling for one major national charitable organization interviewed by ISEC for their study. While somewhat unorthodox, there is ample evidence that N2N campaigns are an extremely effective method for acquiring new donors. Indeed, a major national human services charitable organization interviewed by ISEC indicated that, of the $40 million in total donations received during 2000, approximately $8 million or 20 percent was raised through neighbor-to-neighbor campaigns.[41] Among others, N2N campaigns are employed by Easter Seals, March of Dimes, the American Heart Association, the American Lung Association, and the American Cancer Society.

3.2 Third Party "Opt-in" and Charitable Fundraising

Given the pervasive use of third party data by charities for soliciting donations through every communications media during each stage of the fundraising process, it is easy to understand how a data restriction akin to an "opt-in" requirement would seriously disrupt the time-honored business model currently employed by charities across the nation.

This report analyzes restrictions that we expect would result from third-party sharing "opt-in" legislation. As previously mentioned, this opt-in scheme would result in a practical ban on the use of external information. If prospective legislation considers a more restrictive opt-in scheme for internal and external data, then fundamental business practices would change.[42]

3.2.1 Analysis of Opt-In for External Data – Person-to-Person Fundraising

As outlined above, external prospect identification and research, cultivation, and solicitation are the steps in the person-to-person solicitation process. Charitable organizations use external information from the first step through the last step. External information helps identify prospective donors with the willingness and capacity to give, helps reveal interests, and helps determine the amount to ask for. Person-to-person fundraising would continue even if external information became unavailable, but efficiency would be reduced significantly.

Fundraisers would have a more difficult time determining how much they should ask for and would be less able to prioritize their donor cultivation efforts. Some nonprofits would respond by maintaining their current efforts without the use of external data, others by increasing their fundraising staff. Hence, some

[41] Turner and Buc. "The Impact of Data Restrictions on Nonprofit Fundraising," January, 2002. P. 20.

[42] While analyzing this considerable change is beyond the scope of this report, certainly the impacts of a more restrictive regime would be more extensive than under the less restrictive regime presented below. For example, if legislation significantly impacted the ability of organizations to use internally generated information on existing donors, nonprofits would have to eternally prospect, a certainly losing proposition.

nonprofits would maintain their fundraising costs (and therefore lose revenue) while others would increase their costs in an attempt to keep revenue constant.

The lack of external information would affect a nonprofit's ability to determine how much to ask for and, therefore, the resulting donations. Less information would cause inefficient decisions as well as inefficient requests. Inefficient requests are those requests where donors would have given more had they been asked to stretch and those requests where the donors gave smaller amounts because they were asked for too much.

Based on results from a recent ISEC/Nonprofit Federation survey of health and human service charitable organizations, an opt-in style regime is expected to reduce the efficiency of person-to-person fundraising by 10 percent to 30 percent. Using the conservative estimate of 10 percent, an opt-in data restriction would translate to a loss of $638 million in donations annually from California.

3.2.2 Analysis of Opt-In for External Data – Direct Mail Campaigns

If charitable organizations cannot use external data to identify prospects who are likely to give, then the only way to prospect would be to send untargeted mailings to a random list of prospects. Untargeted, random mailings would achieve much lower response rates than the targeted prospect mailings currently being sent by most nonprofits. Hence, to receive the same amount of donations from prospects, charitable organizations would need to significantly increase their mailings to prospects and, therefore, their fundraising cost to achieve a specified revenue goal. This is the scenario we analyze below.[43]

To estimate the increase in fundraising costs that would be required to keep fundraising revenue constant under a third-party sharing opt-in scheme, we utilize the analysis of campaign data from fifteen nonprofit organizations that raise significant funds through direct mail.[44] As **Table 5** shows, we expect that these nonprofits would need to increase their fundraising costs from 41 cents per dollar raised to at least 53 cents per dollar of revenue, significantly reducing the amount of revenue that these organizations can spend on services for their communities.

Furthermore, these information restrictions would increase the proportion of revenue that nonprofits would need to spend on fundraising to well above recommended thresholds. The Better Business Bureau's Philanthropic Advisory Service recommends that prospective donors give only to charities whose fund-

[43] It is worth noting, however, that increasing mailing size is not the only possible way that a nonprofit could respond to restrictions on the use of external information. Another potential scenario would be for nonprofit organizations to keep fundraising costs constant. In this scenario, organizations' donor bases would erode over time, eventually forcing them out of operation or at least into a smaller operation.

[44] Turner and Buc. "The Impact of Data Restrictions on Nonprofit Fundraising."

raising costs amount to no more than 35 percent of the total collected. An opt-in restriction, then, would push most charities well over the threshold of acceptable fundraising expenditures.

Table 2. Impact of Restriction on Use of External Information on Fundraising Costs

Type of Mailing	Cost as a Percentage of Revenue (Current Use of Information)	Cost as a Percentage of Revenue (No Ext. Information)
Prospect Mailing	17%	29%
House List Mailing	24	24
Total Mailing	41	53

Specifically, these fifteen organizations currently spend about 17 cents of every dollar they raise sending mailings to prospective donors. Furthermore, losing the predictive power provided by external information would ***cause their response rate to drop by 43 percent.*** To gain the same number of new donors with this lower response rate, these organizations would need to increase their prospect mailings by 76 percent. Assuming constant returns to scale, this would ***increase their fundraising cost by 12 percent of total revenue, or $380 million.***

3.2.3 Analysis of Opt-In for External Data – Telephone Solicitations

Given the likely substitution between direct mail and telephone fundraising efforts, the precise quantification of the impact of an "opt-in" type data restriction upon the effectiveness of fundraising via the telephone is virtually impossible. There is, however, sufficient anecdotal evidence from those charitable organizations interviewed and surveyed that use the telephone to raise funds to make reasonable claims about the direction and magnitude of the likely costs associated with an "opt-in" third party data restriction.

Any attempt to assess the impact of such a restriction must be tied to the specific data sets that would disappear as a result of a third party data restriction. Assuming that such a restriction included core marketing data, including name, address, gender, previous names or aliases, age, phone number, and e-mail address – such as would be the case in California were a restrictive opt-in regime to become law – the impact on the ability of human service charities to use the telephone to acquire new donors would be immediate and significant. Indeed, the executive director of one national human services charitable organization stated, "We have never been able to make a straight charitable appeal for (the) acquisition (of new donors) ... the neighbor-to-neighbor model drives all the new blood through our organization."[45]

Foreclosing access to core marketing data for commercial purposes weakens the ability of major national charitable organizations to efficiently engage in cold call active process (neighbor-to-neighbor) marketing, as the model that drives this type of campaign loses data sets vital to its functioning. If we assume that, as with direct mail, response rates decrease by 43 percent as a result of less data and less accurate data, then the typical charitable organization would have to increase its marketing expenditure by 76 percent to raise the same amount of donations – resulting in a transfer of resources away from programs toward administrative costs – or, donations would decline by a similar magnitude. This increase equals 12 percent of total revenue.

In the example cited above, the national charitable organization that raised 20 percent of its total donations through neighbor-to-neighbor campaigns ($8 million of $40 million) would only be able to raise 13 percent of its total annual donations ($4.6 million of $36.6 million) through active giving campaigns with a constant marketing expenditure – a decline of $3.4 million or 43 percent of the amount raised through N2N campaigns.

In California, if we assume conservatively that a typical charitable organization receives approximately two-thirds or 66 percent of its total donations from past or extant donors over their lifetime, and one-third or 33 percent from newly acquired donors, then a 43 percent decrease in telephone solicitations to prospects results

[45] Interview with major health and medical human service charitable organization president. 6 December, 2001.

in a ***loss of approximately $650 million in donations each year.*** If charitable organizations engaged in active process donor acquisition programs increase their marketing expenditures by 76 percent (i.e., 12 percent of total revenue) to offset the decline in response rates, this would still result in a ***transfer of over $550 million annually from charitable programs to administrative costs.*** Under either scenario, an "opt-in" third-party data restriction that limits the use of core marketing data for commercial purposes – including fundraising for charitable organizations – would result in greater costs, lower expenditure or both. Unfortunately, the segment of society that would be forced to bear the heaviest costs – the recipients of services from charitable organizations – are precisely those that are least able to do so.

3.2.4 Additional Impacts of Opt-In for External Data

An opt-in third-party data restriction would have at least two additional negative externalities on charitable organizations. First, charitable organizations would lose revenues earned from the rental of their appended and unappended house file list. Revenues earned from the rental of house file lists typically go directly into the general fund for charitable programs.

To illustrate this point, in the case of the $40 million national charity referenced above, $1.7 million in revenues are derived annually from the sale of appended and unappended lists. This money directly covers program costs. Under an opt-in regime, assuming a 15 percent opt-in rate, the charitable organization would lose 85 percent of the earnings from list rentals, resulting in an additional reduction of $1.5 million for their programs and services. In California, assuming that the average charitable organization accounts for 2 percent of its annual revenues through the sale or rental of lists, then an opt-in data restriction would result in ***a loss of program funds in the range of $132 million annually.*** Even if we reduce the average earnings from list sales and rentals by 50 percent, from 2 percent of total annual revenue to 1 percent, this still results in an annual decline in charitable contributions of ***$66 million***.

A second negative consequence resulting from an opt-in third party data restriction, although less quantifiable, is no less serious. Should the availability of accurate core marketing data diminish – and in this case, particularly data about an individual's age – then charitable organizations that operate bequest, legacy, and planned giving programs will be severely hampered. Often times, charitable organizations with a focus on a particular medical condition – cancer, Parkinson's, or Alzheimer's, for instance – are more oriented toward a mature or elderly donor base. One such organization indicated that the average age of a donor on their house file list was 66 years old.[46] This particular organization selects candidates for its planned giving programs based on a number of criteria,

[46] Interview with national medical/health care human services charitable organization. 6 December, 2001.

including highest previous contribution, total lifetime contribution, whether or not the individual has made multiple contributions, and their age.

Age is an important identifier for planned giving programs, as those who are more advanced in their age are more apt to participate. Given the focus on this elderly cohort, accurate age information is critical. Charitable organizations do not want to solicit donations from deceased individuals, as families of the deceased are likely to be highly sensitive to such inadvertent mistakes. These errors, no matter how innocent, will result in extreme negativities that will alienate individuals who otherwise may have made a contribution.

3.2.5 Calculating the Total Cost of Data Restrictions to CA Charities

The above analyses suggest that a third-party sharing opt-in scheme would increase direct mail campaign costs by 12 percent of total direct mail campaign revenue and could potentially decrease person-to-person contributions by 10 percent. Table 7, Decrease in Disposable Funds, presents the net effect of increased costs and decreased revenues for the nonprofit industry. To raise a constant amount of revenue with lower response rates, direct mail costs increase by $380 million. Assuming a similar impact on telephone solicitations, these telephone solicitation costs would increase by another $553 million. Person-to-person revenues could also drop due to inefficient information by $638 million.

Table 3. Decrease in Disposable Funds

	Direct Mail	Telephone	Person-to-Person	Total
Fundraising Revenue	$3.17 billion	$4.61 billion	$6.38 billion	$14.16 billion[a]
Increase in Fundraising Cost	12%	12%	10%	N/A
Decrease in Revenue	$380 million	$553 million	$638 million	$1.57 billion

[a] Of the $16.68 billion given in California during 1999, $14.16 billion is from person-to-person, direct mail, and telephone campaigns and $2.52 billion is from newspaper, magazine, television, radio, and other campaigns.
N/A = not applicable.

Of the $14.16 billion raised in 1999 from direct mail, telephone solicitation, and person-to-person solicitations, charitable organizations could have as much as $1.57 billion less to spend on their missions. Instead of researching cures for diseases, caring for children, feeding the homeless, nurturing the environment, and providing the many considerable services of charitable organizations, an additional $933 million must go towards fundraising and as much as $638 million is not captured.

3.3 Conclusion for California Charities

The $1.57 billion projected loss to California-based charities is a conservative estimate. It does not include the estimated $132 million in lost

revenues from list rentals and sales, nor does it consider the possibility that donations may decline as potential contributors consider the administrative costs of charities too high to be ethical. Taken together, the cost of a third party data restriction could run well in excess of $1.7 billion each year.

Exempting nonprofits from third party opt-in laws is not a workable solution. Information service providers derive less than 10 percent of their marketing services revenues from sales to nonprofits. Thus, if a law precluded the sale of third party information to the for-profit world, then none will be available for either charities or law enforcement entities.

4.0 DIRECT MARKETING AND NON-STORE RETAILING

The consideration of retailing, like the consideration of non-profit fund raising, is included in this study in order to assess of the costs of generic types of legislation aimed at restricting third party-use of commercial data, through "opt-in" provisions. Many retailers, whether because they extend credit, use credit information, or rely on other kinds of commercial data shared or obtained through third-party sources of any kind will be affected by such a law. For instance, the transfer of consumer demographic and preference data by any credit extender would become prohibited under a privacy regime that prohibits the transfer of information to third parties. In this instance, direct marketers would lose access to one of the most reliable sources of personal information, financial service institutions; information shared by consumers with their banks, insurance firms and credit card companies tend to be far more reliable and current than information shared with other types of businesses. Therefore an examination of the impact of opt-in requirements on this sector should be undertaken.[47]

While risk fine-tuning does not play any significant role in the costs of opt-in for direct marketing retailers, both search costs and the implementation costs of compliance with restrictions of third party data transfer must be considered. The sector is substantial, accounting for 13.2% of all California's $113 billion retail trade sector, registering approximately $14.9 billion in sales revenue in 1999.[48] Direct marketers utilize personal information to target customers most likely to buy their products and services, reducing unwanted solicitations to those less likely to demand the offers. Accurately predicting the likelihood of response based on demographic information saves on advertising and other search costs.

No general study on the impact of data restrictions on the entire subsector exists. An examination of restrictions on data transfer for apparel catalog and Internet retailers provides a basis for analysis.[49] The study of 26 catalog and Internet apparel retailers found that opt-in restrictions on outside or third party data would increase search costs by 3.5 to 11 percent. While the sample set was relatively small, it contained a representative sample of catalogers and Internet apparel retailers by revenue and market reach. The total revenue for the respondents accounted for approximately 20% of industry revenue. Furthermore, the estimates of the survey were conservative for the following reasons. (i) The model did not include the use of cooperative data, a wide spread practice among

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[47] GLB has been interpreted in this fashion.

[48] Source: Wharton Economic Forecasting Associates; Bureau of Economic Analysis, Department of Commerce. *California: 1997 Economic Census, Retail Trade*. (Washington, DC: Bureau of the Census, 2001) This figure is the GAF number that represents those retail formats where the bulk of consumer good shopping occurs. These formats include general merchandise, department, apparel, furniture, and miscellaneous shopping goods stores. It does not include automobile sales or restaurants. The $113 billion in direct marketing represents 14.5% of the total $782 billion in revenue.

[49] Michael Turner, "The Impact of Data Restrictions on Consumer Distance Shopping." (New York: DMA, March 2001)

apparel catalog retailers. Including the lift to response rates from the use of cooperative data would have amplified the cost of restricting the use of third party data even further and thereby increased the costs of recovering lost revenue. (ii) Very large firms and small firms will be most impacted because they are unaffected by additional discounts in bulk printing and shipping. Consequently, a larger share of goods, accounted for by sales from the larger catalog and Internet retailers, will face marketing cost increases greater than the 7% median figure we use in this study. (iii) Given the high cost structure that small catalog retailers confront, an increase of costs in the magnitude of 7% or more will likely result in exit from the market, eliminating competition and thereby a source of downward price pressure. This anticompetitive effect can be expected to persist as the higher barriers to entry stemming from the new cost structure will serve to discourage new competitors.

In 2001, California non-store retailers spent approximately $1.185 billion in advertising.[50] Assuming that the cost increase of approximately 7% (3.5 to 11 percent) holds across the sector, and assuming that companies seek to preserve total revenue rather than profit margins, opt-in requirements would have increased advertising costs by nearly $189-594 million with a mean of $378 million had companies been unable to gather information from third parties.[51] .

The full impact is harder to measure as many of the smaller companies would have found the costs prohibitive, reducing competition. While companies can be expected to bear much of this cost, a rise in cost and fall in supply will be felt disproportionately by disadvantaged rural and inner city consumers, that is, those who do not live near brick and mortar stores or who have no comparable alternative. For instance, recent studies by Price, Waterhouse and Cooper and the Boston Consulting Group[52] found that economically disadvantaged inner city shoppers overwhelming receive lower quality goods at inflated prices from traditional, store retailers, which is why one study found inner city African

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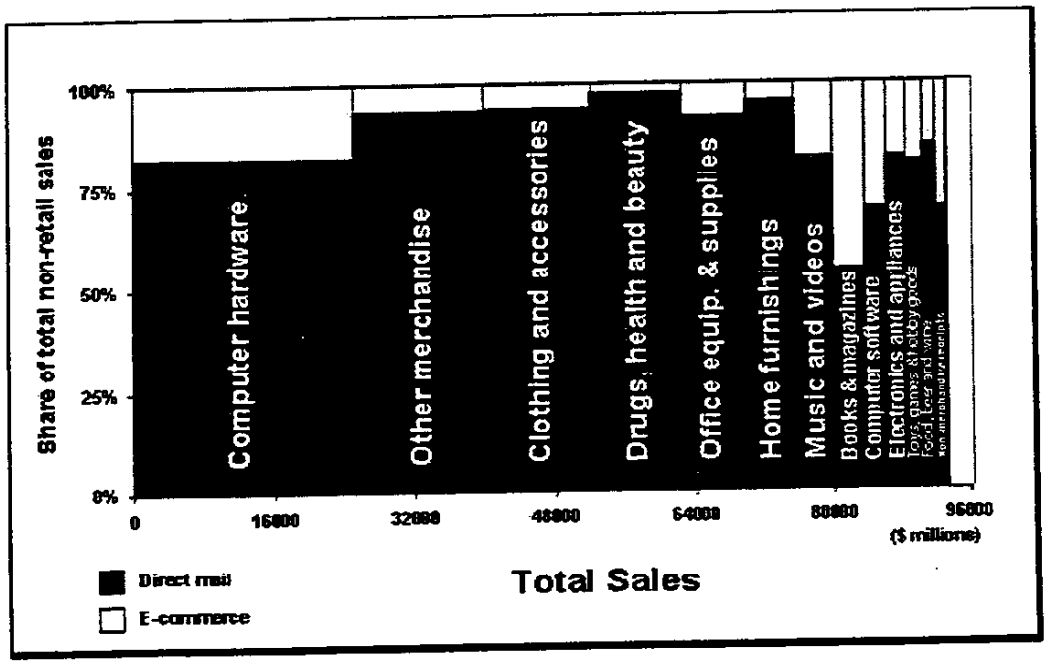
[50] Respondents to the ISEC distance shopping survey reported that they on average spent 22% of net sales revenue on marketing (printing, postage, creative, administration, etc.). $1.185 billion would therefore represent 22% of 5.4 billion in net sales revenues for non-store retailers in California. Given this, a third-party data restriction would increase total costs to firms in the range of $189 million - $594 million. This represents the projected cost increase multiplied by net sales revenue. See Turner, The Impact of Data Restrictions on Consumer Distance Shopping, Appendix F.

[51] The survey of apparel nonstore retailers revealed an expected cost increase of 3.5% and 11%. Extrapolating to the wider direct marketing sector, the associated range of expected cost is $41 to $130 million. We have used the average because there are good reasons to believe that the average understates costs. It does so because of (ii), namely, the market segment is comprised of small and large firms, which unlike medium sized firms, will not reap any significant discounts as a result of scale economies in, e.g., printing and mailing. Large firms already exploit scale economies whereas smaller ones are unlikely to expand search by a sufficient factor to do so.

[52] The Boston Consulting Group in partnership with The Initiative for a Competitive Inner City, *The Business Case for Pursuing Retail Opportunities in the Inner City*. June 1998; PriceWaterhouseCoopers in partnership with The Initiative for a Competitive Inner City, *The Inner City Shopper: A Strategic Perspective*. January 1999. www.icic.org/research/pubs_and_studies.html

American women use catalogs as primary means for purchasing their apparel at a rate 75% above the national average.

FIGURE 5: E-COMMERCE AND TOTAL SALES FOR MAIL ORDER & DIRECT MAIL RETAILERS BY INDUSTRY, US, 1999



4.1 E-Commerce and Internet Retailers

By 1999, e-commerce came to account for more than 8% of the US $138 billion dollars in non-store retail trade. The following chart illustrates e-commerce as a share of total mail order and e-commerce retail sales by merchandise line.[53] If we assume the same proportions hold for California, e-commerce accounts for $1.26 billion in retail sales in 1999 for pure play firms alone.

We raise e-commerce here because the subsector has made significant inroads quickly into the structure of commerce in the US, and it will continue to do so.[54] The chart understates e-commerce revenue as it is confined to firms in non-store

[53] Home fuel, e.g., comprises a considerable share of non-store retail sales, comprising $17 billion of the $123 billion for 1997. It is, along with smaller sectors, excluded from mail order and e-commerce. Bureau of the Census, *Merchandise Line Sales: Retail Trade, 1997.* (Washington, DC: Bureau of the Census, 2001) p. 151. Source: Bureau of the Census, "E-Commerce Multi Sector Survey 1999." www.census.gov

[54] Michael Exstein and Dohyun Cha, "Effects of E-Commerce and Globalization on the Retail Industry." Credit Suisse First Boston, Equity Research, March 9, 2000 report that US e-commerce retail sales are expected to double in 2 years (2004) and worldwide e-commerce sales are expected to quadruple. Of course, this study predates the collapse of Internet stock prices.

retailing. It does not cover firms which operate in an array of media as well as brick and mortar. To illustrate, while there were 9,139 firms categorized as mail order and e-commerce retailers in 1997, the vast majority of which must be assumed to be mail order firms if revenue is any indication, there were 7,513 websites with secure web servers for e-commerce.[55] By 2000, there were 65,565 websites with secure web servers for e-commerce. At least those that extend credit can be expected to have to update their systems to comply with opt-in requirements for financial services.

The costs of compliance for the protection of on-line data from third party access and transfer are particular and have been estimated, as noted, to be approximately $158,000 per firm. If we conservatively estimate that these costs must be born only by large e-commerce firms that extend credit, perhaps 1% of the 65,565 websites with secure servers[56], compliance costs would exceed $103 million.[57] (Given the size of the variance in costs reported by the sample, this figure is rough; if we assume that costs lie somewhere within one standard deviation of the average, total costs may range between $44 million and $162 million for this 1% of firms.) Again, this cost, stemming from compliance software and expert labor, is a one-time expenditure for these firms and is unlikely to impact significantly on their regular operating expenditure.

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[55] Council of Economic Advisers, *Economic Report of the President.* (Washington, DC: Congressional Information Service, Inc., 2001) p. 201

[56] Retailers which would be subject to opt-in provisions for financial services are those that extend their own line of credit , e.g., Macy's, Banana Republic. While figures for the share of firms offering their own credit cards are not available, retail credit card issuers held 25.7% of outstanding credit card debt in 1994. "Holding Their Own." *Card Fax.* August 19, 1995. p. 1. This figure may have fallen considerably since 1994 and with the rise of credit card issuers such as MBNA and Capital One, which have, as argued above, helped to lower interest rates considerably. According to Card Source One figures, the 15 largest retail credit extenders account for 16% of credit card debt and thus suggests otherwise. www.cardsourceone.com/cardsource/2002/demo/credit_card_issuers/retail_cards/by_outstanding s. The estimate of 1% of the 65,565 on-line retailers does not appear to be excessive. There were more than 49,000 firms in retailing that earned $10 million or more in 1997. Bureau of the Census, *Establishment and Firm Size: Retail Trade, 1997.* (Washington, DC: Bureau of Census, 2001) p. 7. Both of these figures suggest that 1% is a conservative estimate. See Robert Hahn, "An Assessment of the Costs of Proposed Online Privacy Research" for the derivation of compliance costs. He assumes that there are 94,000 firms.

[57] If we further assume that only firms in California will need to comply and that the number of California firms that face these compliance costs is proportional to California firms as a share of all American firms, the costs of compliance would be $11.85 million. This assumption may be heavily restrictive as California accounts for far too large a market for businesses to write-off. The figure above is therefore more likely to be the total cost of compliance.

5.0 CONCLUSION

This study shows the significant but often hidden costs of an "opt-in" (i.e., most restrictive) privacy regime in California. By sampling a narrow but economically significant range of economic activities–financial services (including insurance, credit cards, and home mortgages), charitable giving, and direct marketing, the study concludes that the aggregate costs of this most severe data regime could run, by our conservative estimates, into several billions of dollars. (See Appendix C.)

The range of hidden costs, as we show in Appendix C, is extensive. They include adjustment costs for virtually all sectors. Even if adjustment costs were to be borne entirely by the affected firms, a still greater cost would be borne by consumers in the form of reduced access to credit for the least credit-worthy customers, and increased price of credit (i.e., higher interest rates) for all borrowers. Housing will likely become less accessible for first-time home-buyers (renters) and premiums and risk-categories are likely to be less finely tuned in the insurance industry, making the proper allocation of risk more costly to firms, and by extension, those seeking insurance. Direct marketers will have to bear extensive search costs, and non-profit organizations will find it more difficult to identify and solicit their most generous donors. Finally, as Appendix C summarizes, costs have been identified in the areas of lost employment and lost tax base, as well.

Whether such costs should be imposed on the California economy is for its citizens and elected representatives to decide. This study aims simply to fill a perceived information gap in that decision-making process.

In doing so, however, this study bases itself on how third-party data–sharing is actually used in the modern economy. Many objections to third-party data sharing arise from misunderstandings of how businesses gather and share data to better serve customers. For example, data sharing with third-party affiliates does not INCREASE undesirable solicitations (customers addresses are already publicly available) but rather DECREASE them. Third-party data sharing allows marketers to refine their searches for new customers by soliciting only those who are MOST likely to be receptive to such solicitations, and EXCLUDE those who would be unwilling or unable to respond.

Nor should the data privacy issue as discussed here bear the burden of extraneous legal issues, such as fraud. All responsible parties to the privacy debate recognize that fraudulent activities such as "identity theft" or more personal crimes, such as "Internet stalking" are reprehensible. Public policy should ensure that risks of harm and fraud in any sound "on-line" or "off-line" environment are reduced as far as economically feasible. Privacy regulations, such as those contemplated in some California bills, it must be understood, gain some of their media attention because of these separate "harm" and "fraud"

issues, even though third-party data privacy laws for commercial purposes are not calibrated to address these concerns.

Finally, like the Internet itself, data flows in modern commerce are a seamless web. The nature of third-party data sharing is to create a common "pool" of information that all participants can draw upon. By this analogy, it is not possible to exempt one set of parties (such as charities) to the information pool while imposing restrictions on others. If restrictive policies are applied to commercial data sharing there will not be a deep and wide "pool" of data for the exempted parties such as charitable organizations to draw upon. Exempting even the most socially popular elements of the modern digital economy does little to slake their thirst for information. In other words, it is not possible to say that the leak in the privacy pool can be plugged at one "end"; restrictions creating drains at the other (for-profit) "end" may leave the pool depleted for ALL who need its benefits.

APPENDIX A: METHODOLOGY

To achieve methodological consistency with other published analyses of restrictive privacy regimes studies, this study estimates costs upon the postulated passage of a generic "opt-in" privacy regime. We assume such a regime would restrict access to all non-personally identifying commercial information for the State of California. This generic model has been widely deployed by privacy researchers through-out the United States, and to some extent, internationally. It allows broad comparative analyses not only between types of bills within the same jurisdiction, but types of bills between different jurisdictions (or indeed, different levels of jurisdictions, such as Federal vs. State-level.)

Therefore, this study does not attempt to calculate the costs of any specific legislative proposal (such as e.g., Senator Speier's SB 773, or Senator Peace's bill, or any one of the other privacy bills that have been drafted at one time or another.) The calculation of costs associated with any particular bill is not possible, given the minutiae of many of the provisions in such bills, and the near-certainty that the specific provisions and/or effects of such bills would be altered not only in conference but in the devising and implementing of the specific regulations attendant thereon.

The authors recognize that much of the current debate around data privacy laws is driven by proposals to restrict access to financial data. However, the emphasis of this study on the financial services industry is not premised on the desire of any proposed bill to foreclose access to this type of data in particular. Instead, the extensive reporting of costs for this sector of the California economy is to be explained by the presence of several important and oft-cited studies of this sector at the national, and indeed, international level, and the unfortunate paucity of such studies for other sectors of the economy. [58]

It is a frequent point of methodological and policy confusion, then, that the type of data (financial vs. broad commercial data, e.g.) is to some degree independent of the sector which generates or uses it. Thus, financial data is not confined to the financial services industry, nor is that industry exempt from relying upon non-financial data.

Costs of opt-in were estimated on the basis of the findings of a number of the above-mentioned studies on the impact of data restrictions on selected sectors (see Appendix B). The use of existing studies, while limited by selectiveness,

[58]The insurance industry is perhaps the most notable exception to this rule: it is a significant sector of the financial services industry, but perhaps owing to its regulatory 'locus' at the state level, and certainly, the complexity and diversity of its product range, no systematic studies of the likely costs of privacy laws on the various components of the insurance industry have yet been conducted. This omission, we believe, should be addressed, as the insurance industry is perhaps the most data-dependent sector of the entire economy.

scope and differing methodologies, provides for estimations in the basis of search cost increase, compliance costs, and credit price impact. The differences in methods and scope serve to address different dimensions of the questions, as the impact of restrictions on transfers to third parties varies by sector.

The findings of these studies were adjusted to meet California parameters, where California specific information on costs was unavailable. The parameters are offered and explicated in the body of the study. Parameters were derived firstly on the basis of the share of California households as a share of US households. Where applicable, the ratio of spending on products (credit, homes, etc.) in California to that of the overall US economy serves as a further weight. Secondly, parameters were derived by examining the California share of the market for each sector.

The prior availability of previously published national studies for individual economic sectors thus has the further consequence of limiting our study's estimates to only a small (albeit significant, and, we suspect, not unrepresentative) segment of the overall California economy. If comparable national studies had been available for the full range of economic activity found in California (a scarcely imaginable possibility) it is conceivable our study would have found costs far higher than those we do report. Though such a conclusion would seem to follow as a matter of logic, absent such empirical studies, this can only be speculation.

These estimates are in turn dependent on the methodologies applied for each of the core studies. Three studies – Turner and Buc's study of charitable organizations, Ernst & Young's study of the Financial Services Roundtable and Turner's study of non-store apparel retailers – are based on surveys of companies or organizations in the sectors. The findings of the Ernst & Young are not extended to the entire financial services sector. Turner and Buc's study is used to extrapolate for the non-profit sector in California. Turner's apparel study's findings of the level of advertising cost increases as a result of restrictions on third party data transfer are extended widely to the entire direct marketing retail sector.

Robert Hahn's study surveys consultants to estimate the cost of making on-line systems and servers compliant with restrictions on third party data transfer. Costs in his survey result from the need for new systems that tracks and records the provision and transfer of data to third parties, informs third parties of changes in privacy preferences received from clients/consumers and enables consumers to be notified about information stored about them. The summary statistics he provides are skewed by the presence of a heavy outlier, which was more that 3 standard deviations (higher) from the mean. Excluding the outlier reduced average costs from $190,000 to $158,000. We use this figure for compliance calculations. Ranges defined as one standard deviation from the mean are also provided. Given the high variance, we felt one standard deviation to be

reasonable. This compliance costs is selectively extended to segments of credit intermediation firms and e-commerce businesses; the extensions are conservative in scope and their justifications are provided in the main body.

Two studies, Kitchenman (2000) and Staten and Barron (2000) utilize cross-national comparisons in order to establish a correlation between higher interest rates and greater restrictions on data transfer. As no measure of changes in interest rates is provided for changes in the (unmeasured) degree of restrictiveness, we have offered a range of possible costs as a result of interest rate changes.

The Cate and Staten study examines a large player in the credit card sector, MBNA. This case study is used to extrapolate the increased advertising costs for the 8 largest credit card companies on the assumption that they possess similar cost structures.

How the parameters of costs incurred by the FSR and the impact of higher mortgage rates on home ownership and tax revenue must be elaborated.

Search Costs: Financial sector search costs estimates were based on the survey of 90 large financial services companies conducted by Ernst & Young under the direction of Cynthia Glassman. The companies, members of the Financial Service Roundtable (FSR) had a combined revenue of $504 billion in FY2000, or approximately 25% of the sectors revenues. Commercial banking is heavily represented in the membership of the FSR, while the insurance and securities subsectors are underrepresented. Only outliers that reported savings far larger than those reported by most respondents were replaced with the median so that errors would tend towards underestimation of costs. California FSR customer households were estimated to be proportionate to FSR customer households as a share of total US households.

Fred Cate and Michael Staten's study of MBNA provides a basis for estimating search costs for credit card suppliers. Their costs were weighted by California households as a share of US households and by the share of credit card provision accounted for by the 8 largest issuers on the assumption that similar costs extended to those firms with similar market size and power. We made no assumption about the cost structure of smaller firms given that it cannot be assumed that they operate in similar segments.

Costs from Loss of Risk Fine-tuning, Estimation of Losses from Higher Mortgages: Higher interest rates on mortgages, credit cards and other forms of consumer credit was found by Walter Kitchenman's study of credit provision and John Barron and Michael Staten's study of credit reporting. Both use comparisons of US data transfer regime with those of other societies, Kitchenman's with Europe and Cate and Staten's with Australia and Latin

America, to demonstrate higher prices for credit. The mechanisms are explicated in the body of the text above.

Estimations of the impact of an increase in mortgage interest rates are based on the Bureau of the Census Housing Affordability Study 1995. The study provides estimates of the number of renters and home-owners that would be priced out of (come to afford) median price homes in the areas in which they live by and increase (decrease) in the interest rate of fixed-rate 30 year mortgage. Given the reliability of the data, we make counterfactual estimates of housing demand, construction and interest rate payments for a hypothetical 1% increase in the mortgage interest rate in 1995.

The number of renters and homeowners priced out of the national housing market was weighted by the California share of home ownership in the US. California households as a share of US households was weighted by the ratio of California home ownership rates to US home ownership rates to obtain this figure. For both classes of home buyers we assumed that the propensity to purchase a new home was distributed evenly across the spectrum of those who could afford a home; e.g., if at the 1995 interest rate 6.7% of all renters could afford a median priced home in their area and if a 1% increase in the interest rate reduces that level to 6.4% we estimated housing demand among first time home buyers to fall by 0.3/6.7 or 4.5%. Estimates are provided for a 1% and a 2% increase in the interest rate. We use a 1% increase as a base figure. For employment loss, we assume that the loss in housing construction is proportionate to new homes as a share of home sold weighted level of single unit residential housing construction. We conservatively assumed that output per worker to be that of the 1995 level, not taking into consideration the possibility that employment may be disproportionately cut, as in recessions, to defend profit margins. For tax revenue losses, we assumed an average rate of 4.1% on taxable income, based on California's 2000 Income Tax table, using average household gross income and assuming an even distribution between single/married filing separately, married filing jointly, and Head of Household.

APPENDIX B: SOURCE STUDIES

John Baron and Michael Staten, "The Value of Comprehensive Credit Reporting: Lessons from the US Experience." available at: www.understandingprivacy.org

Fred Cate and Michael Staten, "The Impact of Opt-In Rules on Retail Credit Markets: A Case Study of MBNA." Forthcoming, February, 2002. To be available at: www.understandingprivacy.org

Cynthia Glassman, "Customer Benefits from Current Information Sharing by Financial Services Companies." Conducted for the Financial Services Roundtable. (Ernst & Young, December, 2000)

Robert Hahn, "An Assessment of the Costs of Proposed Online Privacy Legislation." (Washington DC: AEI/Brookings Joint Center for Regulatory Studies, 2001)

Walter Kitchenman, "US Credit Reporting: Perceived Benefits Outweigh Privacy Concerns." (The Tower Group, 1999)

Michael Turner, "The Impact of Data Restrictions on Consumer Distance Shopping." (New York: DMA, 2000)

Turner, Michael A. and Larry Buc. "The Impact of Data Restrictions on Nonprofit Fundraising." January, 2002. A joint study conducted by The Direct Marketing Association's Information Services Executive Council (ISEC) and the Nonprofit Federation.

APPENDIX C: OVERVIEW OF COSTS

($millions)	Seach Costs	Lost Revenue	Employment (Workers unemployed)	Additional Interest Payments	Implementation Cost	Other
Financial Services	$1,047*				$154◊	
Mortgages†		$322.6†	1,700†	$418‡		• 1,850 [3,830] families priced out of median-prices homes in their area† • Tax loss equivalent to 4.1% of the additional interest payment for all mortgages post-opt-in†
Credit Cards				$927.5		
Charitable Organizations		$1,571¤				
Retail (Direct Marketing)	$378					
Retail (Direct Marketing)	$189 - $584					
E-Commerce					$103	

* For the 90 members of the FSR and for 8 largest credit card companies.
◊ See text for basis. Costs can be expected to fall between $66 million and $254 million for 10% of credit intermediation firms.
† Assuming a 1% increase in the 1995 base rate, revenue, employment and other costs are calculated for a hypothetical 1% in 1995. Increase in interest payments are for 1999 and 2000.
‡ For a 1% increase in the interest rate of new mortgages in 1999.
¤ Monies lost for direct charitable use.